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|-------------------------------|------------------------|---------------------|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                               | 10/627,180             | MEYERS ET AL.       |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |
|                               | HUNG Q. PHAM           | 2159                |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Amendment filed on 04/30/2010.

2.  The allowed claim(s) is/are 2,4-20,22,24,25 and 27.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached

1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 04/30/10
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date 20100629.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

/HUNG Q. PHAM/  
Primary Examiner, Art Unit 2159

**EXAMINER'S AMENDMENT**

- An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, WILLIAM E. CURRY, on 06/25/2010.

**AMENDMENT TO THE CLAIMS**

- The listing of claims as below replaces listing in the CLAIMS that was filed by applicant on 04/30/2010.

1. (Canceled)

2. (Currently Amended) A method for building a report, comprising the steps of:  
defining a relational abstraction of a data store, the definition defined relational abstraction including a plurality of views, fields associated with the plurality of views, and any relations between the plurality of views;  
selecting one of the plurality of views as a base view of a report; and  
creating at least one report field using the views, fields and relations associated with the base view, wherein the at least one report field is created by:  
a) specifying a relation path from the base view to a predetermined destination view, the relation path including zero one or more relations;  
b) if the specified relation path contains any to-many relations, creating an aggregate field by:  
i) creating at least one nested field to be aggregated, where a relation path of the created at least one nested field begins at a destination view of the created aggregate field; and

- ii) specifying an expression for aggregating values associated with the created at least one nested field; and
- c) if the specified relation path does not contain any to-many relations, creating a scalar field, by:
  - i) referencing a source field from the destination view; or
  - ii) creating an expression field that includes at least one nested field, where a relation path of the at least one nested field begins at a destination view of the created expression field.

3. (Canceled)

4. (Original) The method of claim 2 wherein information returned in a report is limited by specifying a filter that limits any rows returned in the report.

5. (Currently Amended) The method of claim 2 wherein information returned in a report containing the created at least one aggregate field is limited by specifying a filter on the destination view associated with the created at least one aggregate field.

6. (Previously Presented) The method of claim 2 wherein a filter is specified that limits any rows returned in the report by:

- a) creating a plurality of fields for use as filter fields; and
- b) specifying at least one logical filter operator and at least one corresponding filter value on each filter field.

7. (Original) The method of claim 4 wherein a filter is specified that limits any rows returned in the report by:

- a) creating a plurality of fields for use as filter fields; and
- b) specifying at least one logical filter operator and at least one corresponding filter value on each filter field.

8. (Currently Amended) The method of claim 6 wherein a plurality of filter fields are organized into nested filter groups, filters are specified for each of the nested filter groups and an output of applying the filters of the nested filter groups are used to combine results of the report.

9. (Currently Amended) The method of claim 7 wherein a plurality of filter fields are organized into nested filter groups, filters are specified for each of the nested filter groups and an output of applying the filters of the nested filter groups are used to combine results of the report.

10. (Previously Presented) The method of claim 4 wherein results of the report are sorted by at least one field.

11. (Original) The method of claim 2 wherein results of the report are sorted by at least one field.

12. (Currently Amended) The method of claim 4 wherein results of the report are grouped by at least one field.

13. (Original) The method of claim 2 wherein results of the report are grouped by at least one field.

14. (Currently Amended) The method of claim 2 wherein a total aggregate field is created that provides a total of ~~an~~ the created aggregate field based upon relations contained in the relation path for the created aggregate field.

15. (Previously Presented) The method of claim 2 wherein an SQL query that includes report fields is generated, by:

a) generating an initial SELECT statement with a FROM clause that references the base view of the report;

b) adding each report field having an empty relation path to a first subsequent SELECT statement; and

c) adding each report field having a non-empty relation path to a second subsequent SELECT statement, by:

i) adding a JOIN clause from the base view of the report to an initial nested SELECT statement and a FROM clause referencing a destination view associated with a first relation in the non-empty relation path; and

ii) adding a subsequent nested SELECT statement inside the initial nested SELECT statement for each successive relation in the non-empty relation path.

16. (Currently Amended) The method of claim 15 wherein a report filter is added to an the SQL query by adding a WHERE clause to an outer SELECT statement.

17. (Currently Amended) The method of claim 15 wherein a filter specified on a to-many relationship in a relation path of an aggregate field is added to an the SQL query by adding a WHERE clause to a corresponding nested SELECT statement.

18. (Currently Amended) The method of claim 15 wherein an the SQL query is optimized by consolidating nested SELECT statements associated with report fields where relation paths are equal to or are a prefix of each other.

19. (Previously Presented) The method of claim 2 wherein a reusable field definition is created that includes any filters specified on to-many relationships in a relation path associated with a field.

20. (Original) The method of claim 2 wherein a reusable filter definition is created that includes filter groups and fields associated with the report and operators and values that correspond to the filter groups and fields.

21. (Canceled)

22. (Original) The method of claim 2 further comprising the steps of:

- a) defining a security principal;
- b) creating an access control entry for at least one element of information in the data store, which access control entry grants or denies access to the security principal;
- c) defining a security filter on a view, by:
  - i) creating a filter that identifies at least one row in the view; and
  - ii) creating an access control entry denying the security principal access to any information to be excluded by the filter; and
- d) enforcing the access controls on a report, by:
  - i) authenticating the security principal; and
  - ii) applying the security filter to the report.

23. (Canceled)

24. (Previously Presented) The method of claim 2 further comprising the steps of:
- a) creating a reusable list of keys or row identifiers by specifying a filter on a view and selecting at least one of resulting keys or rows; and
  - b) using the list as a set of filter values in conjunction with an IN or NOT IN filter operator.

25. (Original) The method of claim 2 wherein the report field includes two or more non-consecutive references to a particular view.

26. (Canceled)

27. (Previously Presented) A computer-readable storage medium storing instructions executable by a processor to perform a method according to claim 2.

#### ***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES K. TRUJILLO can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HUNG Q. PHAM  
Primary Examiner  
Art Unit 2159

/HUNG Q. PHAM/  
Primary Examiner, Art Unit 2159  
June 29, 2010